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MEMC 0410(2489)
PATENT

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

AUG 15 2001

TECHNOLOGY CENTER 2800

Art Unit 2811

Application of Robert J. Falster

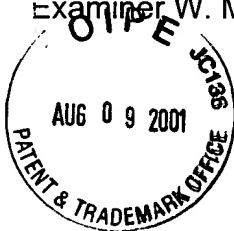
Serial No. 09/366,850

Filed August 4, 1999

Confirmation No. 3575

For NON-UNIFORM MINORITY CARRIER LIFETIME DISTRIBUTIONS
IN HIGH PERFORMANCE SILICON POWER DEVICES

Examiner W. Mintel



August 9, 2001

17/a
FJONES
8-17-01

AMENDMENT A

TO THE ASSISTANT COMMISSIONER FOR PATENTS,
SIR:

In response to the Office action dated April 9, 2001, please enter the following amendments:

IN THE SPECIFICATION:

Replace the second paragraph on page 2, beginning at line 6 with:

It is known in the art that doping semiconductor devices with lifetime killing impurities (i.e., recombination centers such as gold or platinum) results in an increase in the recombination rate when the device is turned off, and thus an increase in the switching speed as well. (See, e.g., V. Temple and F. Holroyd, "Optimizing Carrier Lifetime Profile for Improved Trade-off Between Turn-off Time and Forward Drop," IEEE Transactions on Electron Devices, ed. 23, pp. 783-790 (1983).) In the past, such impurity doping has typically been applied to large areas of the device, even throughout the entire bulk of the device. This approach has resulted in significant decreases in the device turn-off time. However, accompanied with this improvement is an increase in device forward voltage drop. Similar results have been obtained when alternative methods of "lifetime killing" have been employed, including electron, proton and gamma radiation, throughout the bulk of the device.

08-10-01
FEE TRANSMITTAL

Application Number 09/366,850
Filing Date August 4, 1999
Confirmation No. 3575
Inventor(s) Robert J. Falster
Group Art Unit 2811
Examiner Name W. Mintel
Attorney Docket Number MEMC 98-0410(2489)

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METHOD OF PAYMENT

1. [] The Commissioner is hereby authorized to charge the indicated fees to Deposit Account No. 19-1345.
- [] The Commissioner is hereby authorized to charge any additional fees required under 37 CFR 1.16 and 1.17 to Deposit Account No. 19-1345.
- [] Applicant claims small entity status.
2. [X] Check Enclosed. The Commissioner is hereby authorized to charge any under payment or credit any over payment to Deposit Account No. 19-1345.

FEE CALCULATION

1. [] BASIC FILING FEE Subtotal (1) \$ _____
(Type: _____)
2. [] EXTRA CLAIM FEES Subtotal (2) \$ _____
- Total Claims _____
Independent Claims _____
Multiple Dependent Claims _____
3. [X] ADDITIONAL FEES Subtotal (3) \$ 110.00
- [] Surcharge - late filing fee or oath
[] Surcharge - late provisional filing fee or cover sheet
[X] Extension for reply within 1st month
[] Notice of Appeal
[] Filing a Brief in Support of an appeal
[] Request for ex parte Reexamination
[] Petitions to the Commissioner
[] Submission of Information Disclosure Statement
[] Recording each patent assignment per property
[] Request for Continued Examination
[] Other: _____

TOTAL AMOUNT OF PAYMENT \$ 110.00


Edward J. Hejlek, Reg. No. 31,525

8/9/01
Date

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